

ABSTRACT

A bathtub plumbing system including a hand-held shower controlled by a compact pressure balanced, volume and temperature controlled mixing valve. The pressure-balancing valve is installed in a bathtub plumbing set having a hand-held shower accessory. The pressure balancing valve receives hot and cold water from hand-held shower water feed pipes coupled to the main hot and cold water inlet pipes, respectively, located upstream of the respective hot and cold water control valves used to supply water to the main faucet. The hand-held shower hot and cold feed pipes are each hydraulically connected to a first respective hot and cold water inlet of a compact pressure-balancing valve. The hand-held shower is hydraulically connected to the outlet of the pressure-balancing valve by a flexible hose. Hot and cold water entering the pressure-balancing valve is mixed therein independently of the hot and cold water supplied to the faucet. A single control valve may therefore be manipulated to supply pressure and temperature balanced water to the hand-held shower.